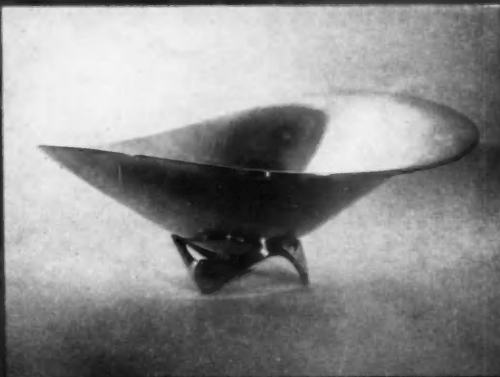


Design

THE MAGAZINE FOR MANUFACTURERS, DESIGNERS AND RETAILERS



FEBRUARY 1952 NUMBER 38

The Council of Industrial Design

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Design

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(page 8)

The engineer-artist and the industrial designer

ONE OF THE PROBLEMS of the Council of Industrial Design is that the words "design" and "designer" mean different things to different people. There has been much talk as to whether in the engineering industries the engineer, who is the essential designer, should call on an industrial designer to advise on shape, colour, lettering, etc. It was amusing to hear W. T. Wren, of Allied Iron-founders, say at the recent Design Congress that the Aga stove, which had been greatly admired, had "never had the hand of a professional designer upon it." The plain truth is, of course, that it is the work of that extremely rare and most valuable bird, the engineer who is also a sensitive artist. Dante Giacosa, of Fiat, described him in his paper as "the engineer-artist." It seems clear that it is only the fusion of the two functions which will give such admirable results.

In the December number of DESIGN, Alex B. Cooper contributed an interesting article on this subject. He comes down strongly on the side of the engineer, but he emphasises the necessity of aesthetic training in the engineering curriculum. How otherwise can the engineer discriminate between shapes which are all technically efficient and economical in production, but some good, some commonplace, and some bad? He goes on to point out that the engineering curriculum is already too full, so there seems little hope of adding to it a subject which many engineers will feel to be of very little importance.

All of this is no doubt quite true, but it does not seem to be the end of the story for all that. Perhaps the cultivating and developing of a critical aesthetic sense is more a matter of "background" than of "courses of instruction," though a judicious mixture of the two is no doubt desirable. The background to our lives counts for more than most people think. Background in engineering training colleges and in the drawing offices of individual firms is, let us admit, usually abominably ugly. It is fair to add that it is no more ugly than the majority of backgrounds outside. But even so it merely confirms the general attitude that such things are not really important. It is the natural result of the disastrous split between "technical" and "art" education which has led to the setting-up of two distinct schools in most towns. One sometimes finds that in one school the shapes,



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colours, patterns and textures of goods are studied with little real knowledge of how they will be made in industry, which in the other is all-important, to the exclusion of any interest in the visual aspect. In some towns the schizophrenic ideal has been carried to its logical conclusion and the principals of the two schools do not speak when they meet in the street! There are very notable exceptions, but is it not possible to encourage more training colleges, schools and firms to consider their design policy in this matter? It is not necessary to spend great sums of money immediately but it is important to ensure that a beginning is made towards attaining harmonious interiors. Without adding one single subject to the curriculum, an immense improvement in the design of engineering products might be achieved in time by this method. The Council of Industrial Design will very gladly discuss the matter further with any firm or organisation which is interested.

Large firms with a considerable drawing office might consider the possibility of introducing an industrial designer, not so much to work on individual projects as to put his own point of view to the engineers, a point of view which is usually overlooked. Such a man would need to be much more than an industrial designer in the narrow sense. He would have to be a man of wide interests, tolerant and gregarious. There is no reason to suppose he would be any easier to find than the "engineer-artist." But such difficulties should not prevent bold experiments in firms where a member of the board believes the job is worth doing and is prepared to give time and care to keep inter-departmental and human relationships on the rails. It would be very interesting to see a pilot experiment made by a go-ahead firm on these lines, backed up later by a short course of lectures. We feel that, taking the long view, it might well prove a profitable investment.

G. R.

Notebook

COMPANY CHAIRMEN have lately been paying some attention to design in their annual statements to shareholders. Sir Harold Bowden, of Raleigh Industries Ltd, put forward "the high standard of design, finish and efficiency [of] the modern bicycle" as a reason for the present popularity of cycling in all parts of the world. A. F. Oatley, of Cannon Iron Foundries Ltd, grouped "research, design and development" together in a reference to Cannon activities whose results would be seen during 1952. And J. J. Parkes, of Alvis Ltd, said that the opinions of home and overseas visitors at last autumn's Motor Show had "confirmed their preference for the Company's policy of maintaining the traditional appearance so long associated with our product [the Alvis car]."

IN THE 1952 COMPETITIONS of the Textile Institute, a section for carpet design has been introduced with the co-operation of Carpet Trades Ltd. At the same time, *Furnishing* magazine has published

a report on its latest carpet design competition. In this, the judges say that the general criticism made in earlier years – of failure to grasp the technical requirements of Wilton and Axminster weaves – is no longer applicable: but, on the other hand, they consider that "many young designers have been seeking inspiration only among existing carpet designs" and need to look at design more widely – a common failing, we suspect, among people in the carpet industry.

WE ACKNOWLEDGE with thanks the Christmas cards and calendars which reached us in greater numbers than ever before. No doubt this was partly due to DESIGN's having more readers than ever before; but partly, also, to the interest aroused by Noel Carrington's article on this subject in our December issue. Besides drawing comments from the trade press, (e.g., *British and Colonial Printer*, 21 December), this article prompted a leader in the *Manchester Guardian* of 20 December. The subject is clearly one to which DESIGN must return.

A. D.

Ravenna glass bowls from Orrefors, opposite, form the frontispiece for an issue of DESIGN that gives special prominence to news from Scandinavia, with correspondents' reports from Finland, Sweden and Denmark. Ravenna glass, designed by Sven Palmqvist, was seen in England in the recent "Scandinavia at Table" exhibition.

Paul Reilly:

REPORT FROM

FINLAND

IT SEEMS TO BE generally agreed in Scandinavia that the Finns of all the northern peoples are the most artistic, indeed the most interesting and original. "Of course the Finns are different," they said in Stockholm as I passed through on the way to Helsinki; "they are tough, brave, indefatigable and they have genius" – and then as an afterthought "but watch the bottle; they'll put you under the table if you don't take care."

A North Sea storm and so a missed connection for Stockholm had already given me a slight foretaste of contemporary Finnish art; I was able to spend an hour in the Gothenburg gallery studying an exhibition of new Finnish painting. Here indeed was something strange and different; the sombre twilight canvases showed broad horizons punctuated with stiff upright trees or gaunt, elongated portraits painted as if by moonlight. There was little colour in the show but much strength stemming from a stern angularity. I was to notice this later in many guises, in their architecture, their furniture, their ceramics and even in the expressive manual gestures of Ilmari Tapiovaara, their leading furniture architect, who marks his approbation of a design or a designer with sharp, square movements of his hands accompanied by staccato clucking noises.

I was invited to Finland by the Federation of Finnish Industries to talk at a conference of manufacturers and designers on the organisation of industrial design in Britain. I was also asked by the British Council to lecture on the general subject of public taste today. Mindful of the reputation of Finnish designers, so recently enhanced at the Milan Triennale, and admiring from photographs already seen so many pieces by individual Finnish artist-craftsmen, I came prepared with polite, modest phrases to the effect that all that we in the west have done is to give a name, "industrial design," to what these Finns have for long been doing. For my public lecture I had developed the theory that *avant garde* taste, the taste, that is, of practising designers, is subject to a marked rhythm of change that may be com-

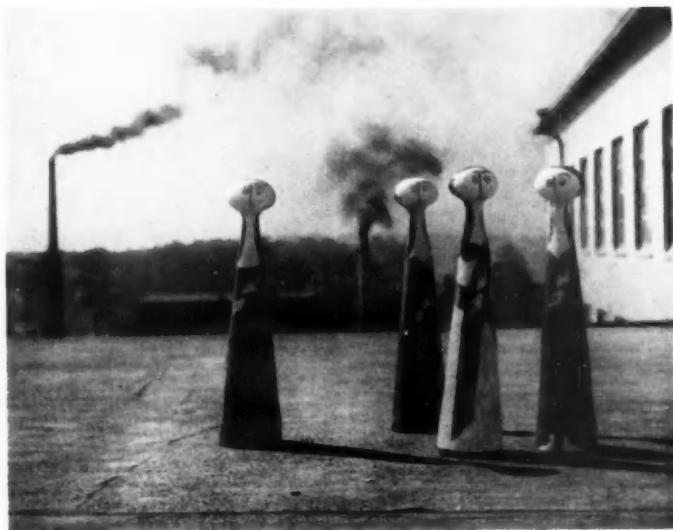
pared with the three classical orders of architecture, the Doric, the Ionic and the Corinthian, and that the western world has recently moved on from a Doric phase in which the call was for functional simplicity, purity of form and economy of ornament to an Ionic phase in which the call is for more elegance, lightness, charm and grace.

Both these preconceived notions turned out to be wide of the mark as far as Finland is concerned. In short, there is as yet little understanding there of what is meant by industrial design or by design policy in industry, and their *avant garde* designers, whether architects or craftsmen, are still in general sternly Doric in their approach. The two together point to the conclusion that the Finns are perhaps a generation behind the rest of us in these matters, which is not surprising in view of their history and their latitude (we used to say once that it took fifty years for an idea to cross the Channel and another fifty to reach from London to the North). What is surprising and altogether exemplary is the Finnish determination to

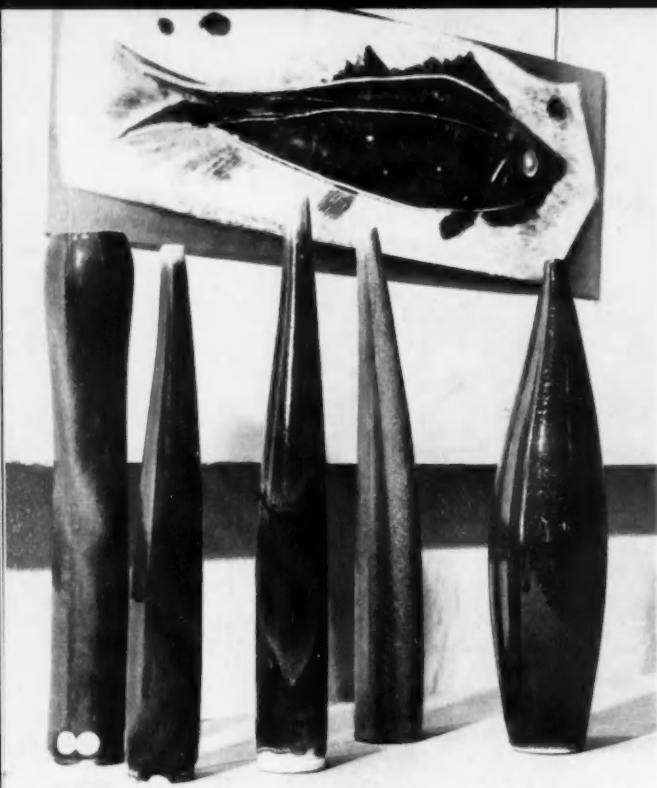




Giraffe-like elongation of shapes and patterns seems to be currently en vogue among Finnish designers. Compare these stoneware vases by Kyllikki Salmenhaara, of Arabia, with the strange pottery figures (right) by Birger Kaipiainen of the same firm. The vases were photographed at the November 1951 exhibition of Finnish industrial art (display designed by Tapio Wirkkala); the figures were photographed on a roof of the Arabia plant.

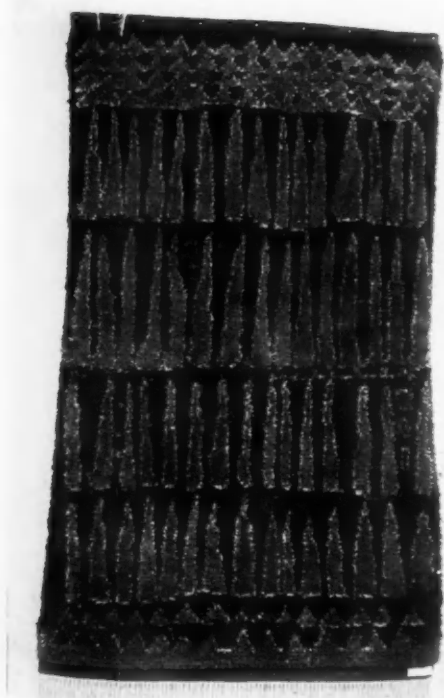


Left: The same vertical emphasis is seen in the cover of the annual of Finnish industrial art, published by Ornamo, the Finnish association of industrial artists. Designed by Maija Leander.



catch up. The remarkable expansion of the country's industrial capacity, accelerated by the reparations to Russia, will certainly be matched by advances in techniques of management and production, including no doubt the study of industrial design. The industrial conference which I witnessed was, I believe, a first step.

There are many influences traceable in present-day Finnish taste and design. The first impression on looking into the shop windows is that Finnish taste is about as mixed as our own; one can find the whole gamut from bourgeois borax to fashionable idiosyncrasy, with a growing market in between for Anglo-Scandinavian contemporary common sense. The last is well supported by the great Helsinki store, Stockmann's, where the lead is given by Architect Werner West and a staff of able furniture and light-fitting designers; the Stockmann cabinet works at Kerava are now making nothing but sensible contemporary furniture, except for a running contract



The stoneware vases of Toini Muona, of Arabia, (top left) and the hand-woven rug by Lotta Ring (left) repeat the popular elongated forms seen in the Helsinki industrial art exhibition in November. Behind the Muona vases is a pottery wall plaque by Rut Bryk; at top of this page, her latest plaque in a charmingly naïve series on village life centring round the church; her rich glazes have something of the colouring of a John Piper painting.

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Design



Left: Porcelain vases designed and made in Friedl Kjellberg's Arabia studio, reviving an old Chinese technique of cutting through the body before glazing. Above: A hand-painted table bell; shape by Kaj Franck, decoration by E. Tomula.

for a radio manufacturer who still insists on glossy, jelly-mould cabinets. But round the corner from Stockmann's store one finds a shop packed with scalloped, tasselled lampshades, brass chandeliers and heavy brown suites of muddle-age furniture with names like Buckingham and Chippendale. And further on, one meets the very pure, almost esoteric specialty shop called *Artek*, selling only the most select and austere pieces of Aalto furniture, familiar now for many years but still full of character and precision, though to a South Bank eye no doubt rather rigid and dated.

In the architecture of Helsinki, too, there have been and are many influences. The oldest classical quarter strikes a note almost as Czarist-Russian as their ancient broad-gauge rolling-stock; the high-necked dome of the cream and white cathedral is certainly not western. But the weight and detailing of the famous railway station are boldly Teutonic, as are the proportions of many of the public buildings built

before and since the first world war; and now all around the outskirts a vast building programme is afoot, this time in the contemporary hygienic Swedish manner but with, as always in Finland, the sudden touch of original inspiration. In architecture they still have Aalto, as fresh and inventive as ever he was (his latest building, for the Finnish engineers, is full of new ideas and perhaps, to conservative engineering tastes, shocking surprises in form and finish). In glass they are still mourning the beautiful and talented Gunnel Nyman who lived with and loved her material as few craftsmen have. In ceramics there is a whole constellation of talent working in perfect freedom on the top floor of the vast Arabia plant. In furniture the young Tapiovaara is making an international reputation almost to equal that of the expatriate Saarinen in the USA. But above all they have in Tapio Wirkkala an outstanding and almost universal designer, as creative in print as in display, as in glass, as in timber and plywood; and, young as

Coloured figurines (about 3½ in. high) from a popular series made in the applied arts department of Arabia.





A corner of the members' dining room in the new headquarters for the Finnish engineers recently completed to Alvar Aalto's designs. Note the standardised Aalto bentwood furniture and the use of colour-washed brickwork as an interior wall finish. (A pre-war table and post-war chair by the same designer are illustrated on DESIGN's front cover.)

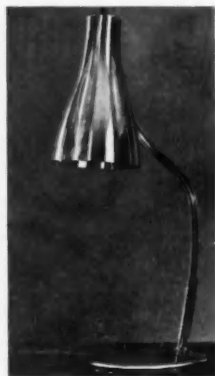
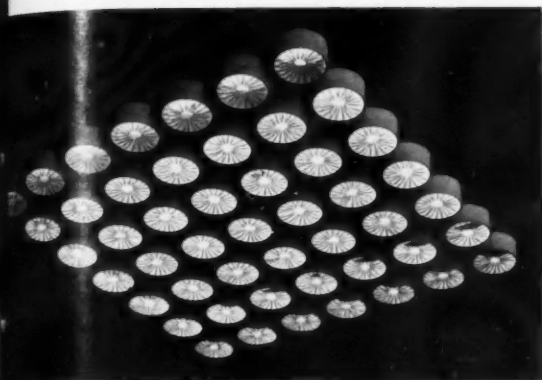
An adjustable chair for quantity production designed by Carl-Johan Boman, shown for the first time at the November industrial art exhibition. The same frame can be used for two different heights, the seat in one position becoming the back in the other.



he is, he is already something of a national hero, the winner of several awards at the *Triennale* and now the first recipient of the rich Lunning prize presented by the Georg Jensen Corporation of New York to the best Scandinavian designer of the year.

They were right in Sweden to say that these Finns are real originals; there is among these artist-craftsmen a constant quest for new ideas and new forms, whether in individual pieces of pottery, in glass vases for a solitary flower (a bunch is an unheard-of luxury in Finland), in large or small light fittings or in simple and useful furniture for hostels and lecture halls. But—and this is where they still have to learn from the west—just because these gifted folk are so individual and experimental their influence on industry generally is as yet negligible.

The most curious example of this paradox is to be found in the Arabia works, where a dozen artist-potters are installed in fine studios with high views over inland waters and wooded islands and are given by their directors as free a hand as any individualist could wish; and from these studios of artists like Rut



A versatile and successful designer and craftsman in metals is Paavo Tynell. His firm, Taito Oy, makes light fittings of all kinds for the home and export markets. Left, his latest solution for masking fluorescent ceiling tubes. Centre, a polished brass desk light acceptable for home and export. Right, a florid ceiling pendant designed mainly for export to the Americas.

Bryk, Birger Kaipiainen, Toini Muona, Aune Siimes and Friedl Kjellberg, shapes and glazes and patterns of the utmost interest and originality are turned out in a rich and steady stream. But down below, where the bread-and-butter is made, there is no trace of this invention and inspiration, only boring and inferior repetitions of traditional (in many cases old English) successes. There is perhaps nothing very unusual in this; the run of the mill for popular consumption is much the same the world over, but in Arabia, halfway between the top-storey studios and the factory floor is the "applied arts" department. Here they make pretty souvenir figurines and other minor ornaments and here I looked for traces of the influence of the prestige potters above. I found them in negative impression, as it were. While Rut Bryk on the top floor is producing brilliant and subtle wall-plaques or Michael Schilkin is sensitively modelling his favourite animals, the applied arts department attempts second-rate imitations of these real things. This form of flattery could be better left to some rival company, were there another in the field; but Arabia has the field to itself and is presumably in no danger.

It seemed a topsy-turvy kind of design policy to spend generous sums in encouraging original talent and then to discredit the result by debased adaptations. The applied arts department would do better to concentrate on the things within its modellers' and painters' reach - its little figurines and the charming bells and other shapes designed for the decorators by Kaj Franck.

But where there is no consistent design policy, there is always the temptation to take a good model and try to copy it. This is the way the Finnish tex-

tile mills in Tampere work, and the way the same city's shoe manufacturers get their designs. They buy patterns abroad or lift them from sketches in English or French magazines. It is the same in the Finnish rubber industry; I heard a Finnish designer challenge a rubber magnate to deny that he sends his travellers abroad to pick up samples from Germany or Britain, and there was no denial. And all this in a country that for its size is possibly richer in designing talent than any other. It made me feel quite at home.



Under the heading of "The Wonderworks of Tapio Wirkkala" a recent issue of the *American Interiors* devoted six pages to Wirkkala's designs with an enthusiastic commentary by Edgar Kaufmann Jr of the Museum of Modern Art. Above is an example of Wirkkala's latest experiments with carved blocks of multi-ply laminated wood revealing the unexpected beauty of a man-made grain. "In these ringed and ringing forms there is the premonition of a grammar as new as Joyce's," says Kaufmann. These delicate, feather-light dishes and shells epitomise the whimsical invention of the individual Finnish artist craftsman today.

'Come to the Cotton Centre'

The Cotton Board Colour Design and Style Centre puts its invitations brilliantly into print

REGULAR VISITORS to the exhibitions of the Cotton Board Colour Design and Style Centre in Manchester need no further evidence of the Centre's liveliness. Other people, whom time and space keep away, must form their impression of the Centre from the character of its printed matter.

The Centre, fortunately recognising this fact, ensures that its printing generally and its invitation cards in particular are, like the exhibitions, lively in design and full of colour. The furtherance of this policy has been the special interest of the present Director, Donald H. Tomlinson, since he joined the Centre: the illustrations on this page and opposite show the extent to which it has been successful.

The brilliance of the invitation cards is pictorial rather than typographical, but the typography of their backs (and the inner folds of double-size cards) is a good "second feature" in the programme.

The method of putting the Centre's design policy into effect is to commission a number of designers and to give them a fairly free hand. The main limitations are on size ($5\frac{1}{2}$ in. \times $4\frac{1}{2}$ in., or twice that in

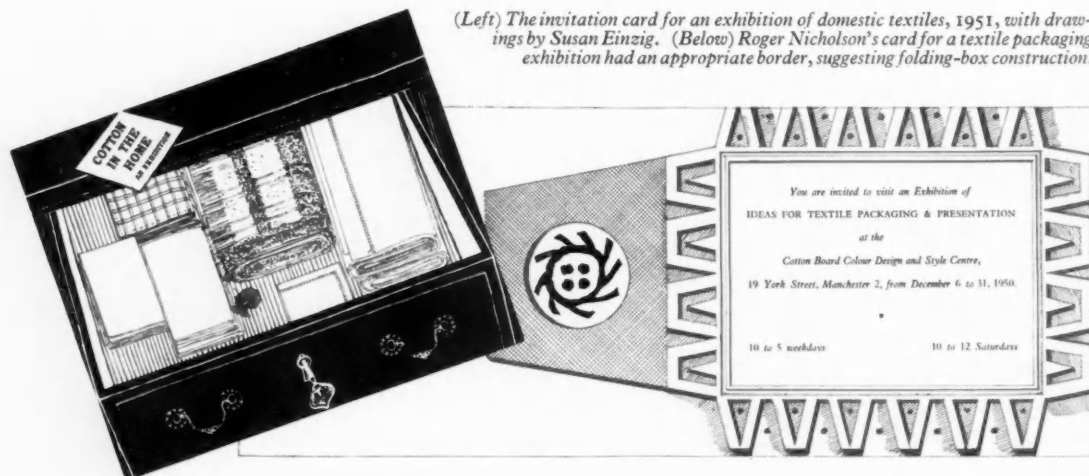
either direction) and on method of reproduction; *i.e.*, letterpress printing from type and line blocks in not more than four colours. Line has been chosen in preference to halftone for a number of reasons – because it is more closely akin to textile printing methods, and so to the material of the exhibitions; because colours which are difficult to achieve with standard four-colour inks can be obtained in this way; and further (Mr Tomlinson explains) because the cards can seldom be designed far enough ahead of opening dates for halftone colour-blocks to be made in time.

That they have been well received is evident from the fact that the Centre receives requests for "back numbers" from designers and students whose aim is to collect complete sets of Cotton Centre invitations.

All but one of the cards illustrated here have been printed by the Cloister Press, at Heaton Mersey, Stockport. The exception is the *Opera and Ballet* card, by Jesse Broad and Co Ltd, Manchester: it was an exception also in size, in shape, and in the use of line blocks for three colours with a halftone for the fourth.

A. D.

(Left) The invitation card for an exhibition of domestic textiles, 1951, with drawings by Susan Einzig. (Below) Roger Nicholson's card for a textile packaging exhibition had an appropriate border, suggesting folding-box construction.





AN EXHIBITION OF TEXTILES
and other work of the
Royal College of Art

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5



6

DESIGNERS :

1 : a student of the Royal College of Art

2 : anonymous

3, 4, 5, : Roger Nicholson

6 : Bernard Nevill

The use of MODELS IN DESIGN

by J. Beresford-Evans, *consultant designer*

Let no man that intendeth to build settle his Fancie upon a draught of the worke in paper, without a Modell of the whole structure.
Sir Henry Wotton (1624)

A DESIGNER'S JOB is to organise and to select, and then to explain his thoughts to other people. This he usually does by making preliminary sketches, followed by the working drawings which are necessary for the construction of the product. Mechanical or architectural drawing—three-dimensional form by orthographic projection—is an accepted convention. Rectangular dimensions are easily established, but experience and imagination are needed to understand from a drawing (even a perspective drawing) the mass and contours of a solid form. Curved surfaces and intersecting planes often produce involved or unconvincing geometry, correct enough when stating results already achieved but cumbersome paper-work in the earlier stages of development, when a designer is testing ideas.

A model, on the other hand, can help the designer in his preliminary search for a shape; it can show the *volumes* of the dimensions on his drawing, and the

design as a whole—as a reality—can be seen at once by anyone coming to it for the first time.

The model should keep pace with the design as it develops. First comes the slightest three-dimensional notation, a kind of sketch in the round; then, as the design reaches maturity, a model can be made of more permanent materials to show details and refinements. Yet whilst it is under discussion the model ought to be kept as flexible as possible, for none of those concerned wants to be inhibited from suggesting a desirable change because such a change might ruin a fine piece of miniature craftsmanship.

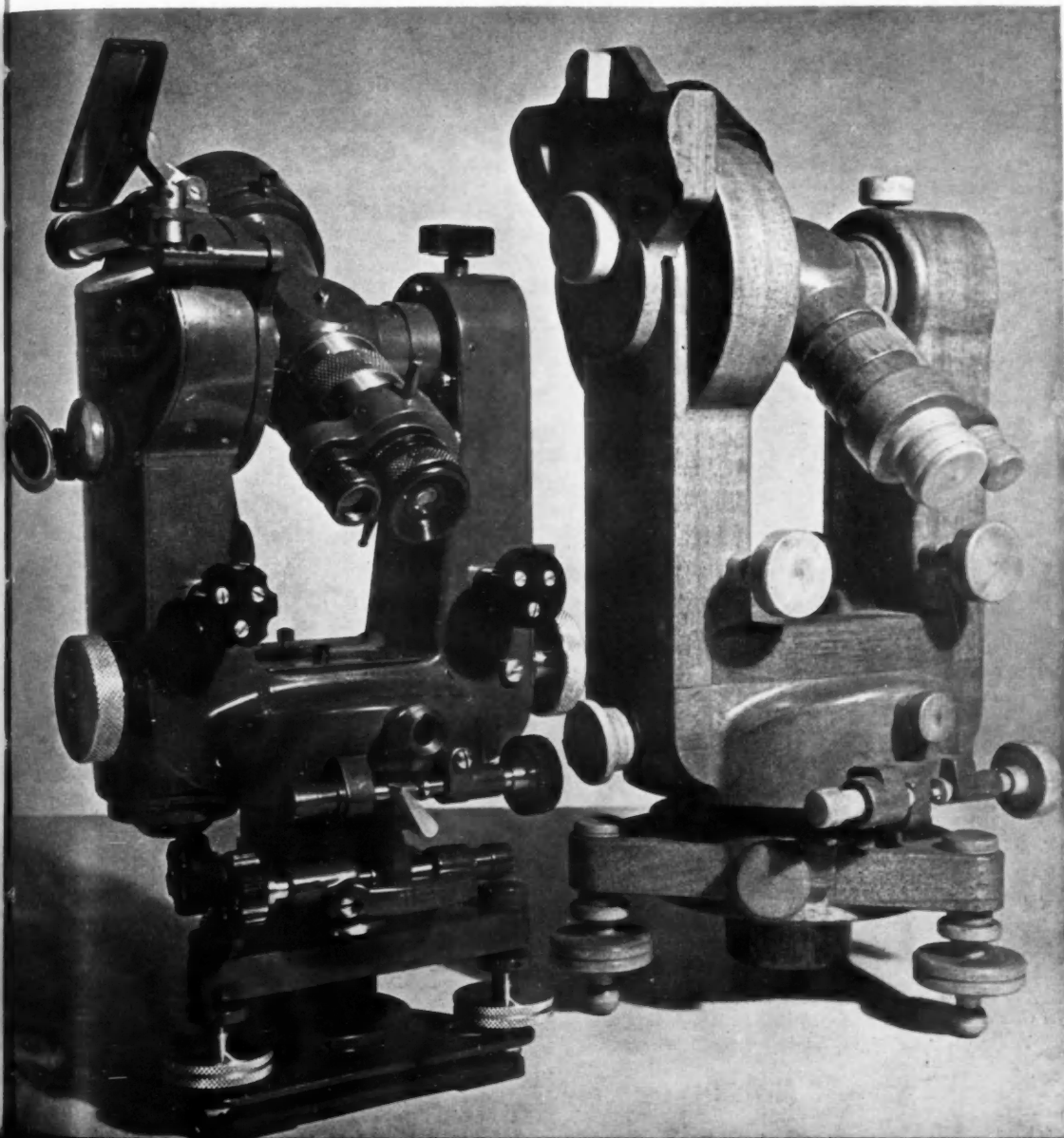
Anyone calling himself a creative designer can cut out a shape in card or balsa wood, stick on to it pieces of dowel rod, coloured paper, pins or anything which is of approximately the right general shape or character. Preliminary design may require the opinions of a number of specialists, and a sketch-model of this kind saves time in deciding broad issues. Various interests can use it as a meeting point, for all the parts can be understood at once; whereas the working drawings, calculations or statistics that support it will require study. This is the stage at which the design team will make their most important decisions, and they can record their changes on the model, cutting it

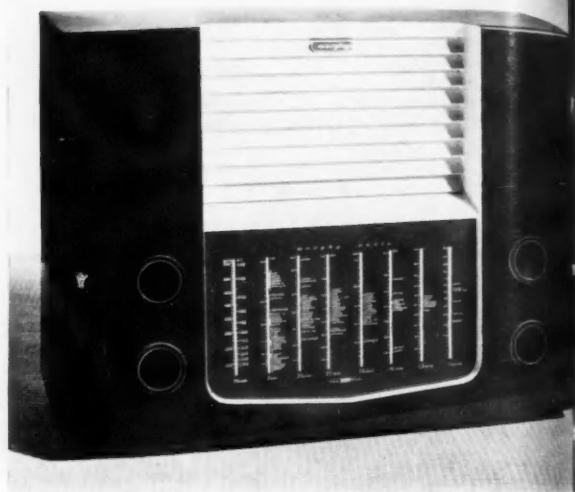
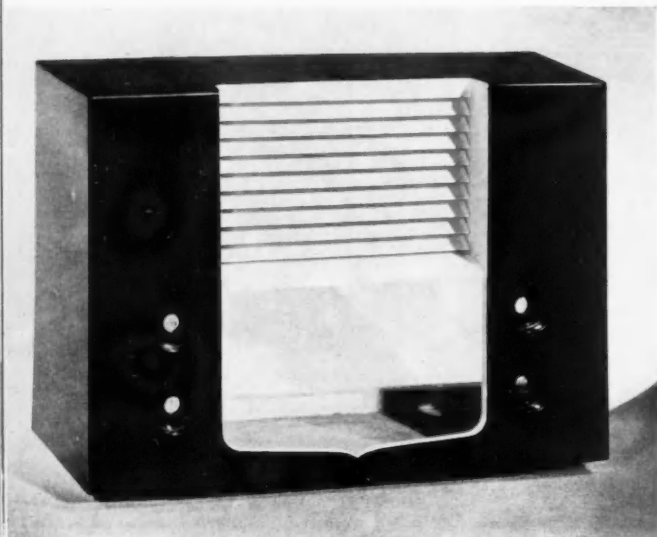


The Rootes Group, in the development of their car designs, use scale models built up from a thick coating of Plasticine on a wooden foundation.

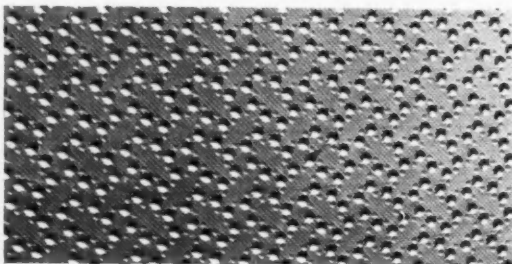
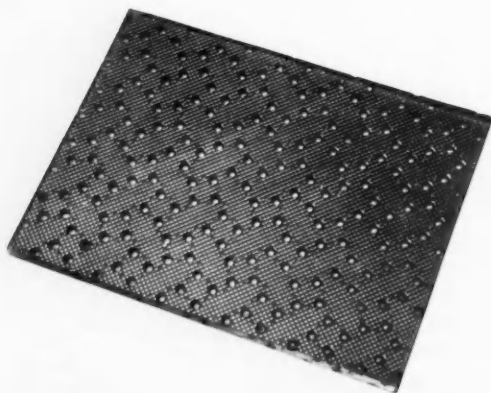
The full-size model of the Phantom safety light-switch (right) showed that changes in design, desirable for economic manufacture, could be made without harming the appearance. The changes were: (1) to mould the visible screw-holes in the front, (2) to simplify assembly by making the base slightly larger than the cover, (3) to stick the trigger into position instead of screwing it. Switch designed by J. R. Chapman in co-operation with R. J. Magna, who made the model.

In instrument design, E. R. Watts and Son Ltd have found that "sketch drawings, however excellent, are not quite good enough . . . the positioning of the controls is all-important. Only by actually feeling and trying the various knobs on a wooden model can the designer establish the best possible position for each." Below, a finished theodolite is shown alongside the preliminary wooden model made for Watts by Collimator Cases Ltd.





Both of these photographs are of models. The first (left) was made in Murphy Radio's model shop; the second, incorporating a number of changes, by R. J. Magna Models Ltd. Changes include the use of tuning knobs mounted in the conventional manner, not in recesses; a ribbed ledge below the speaker; elimination of the dip in the base of the scale surround. (Designer, A. F. Thwaites.)



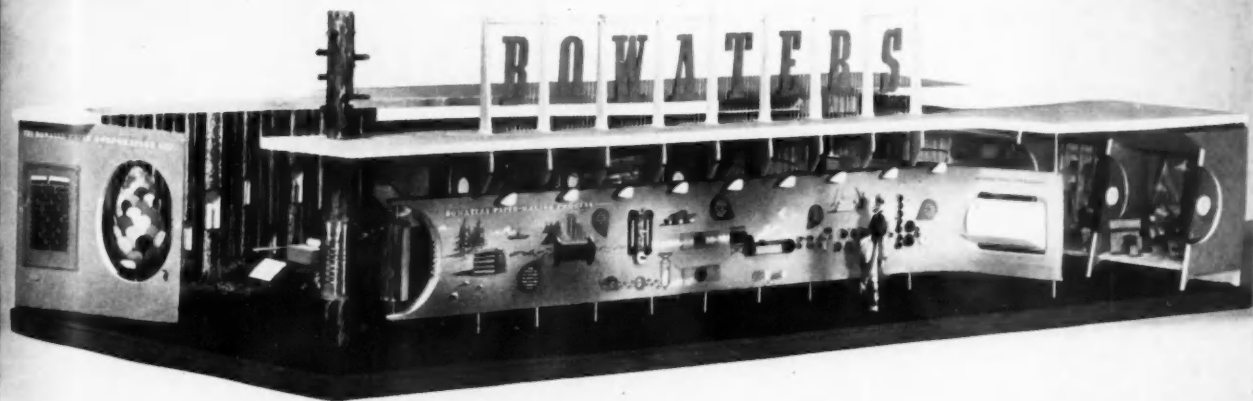
Festival pattern rolled glass. The Perspex model seen in the upper picture, made by Maxwell Wright, showed that the smallest spots did not "read" as clearly as was desirable. It was therefore possible to correct the design with a clear knowledge of the final appearance. (Designed by Beresford-Evans for Chance Bros Ltd.)

about and reshaping it if necessary, with little effort or loss of time.

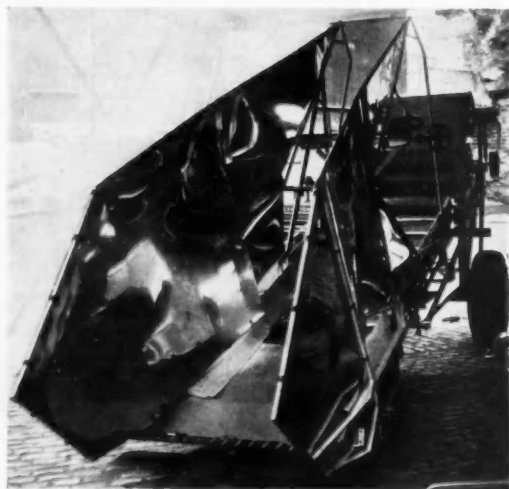
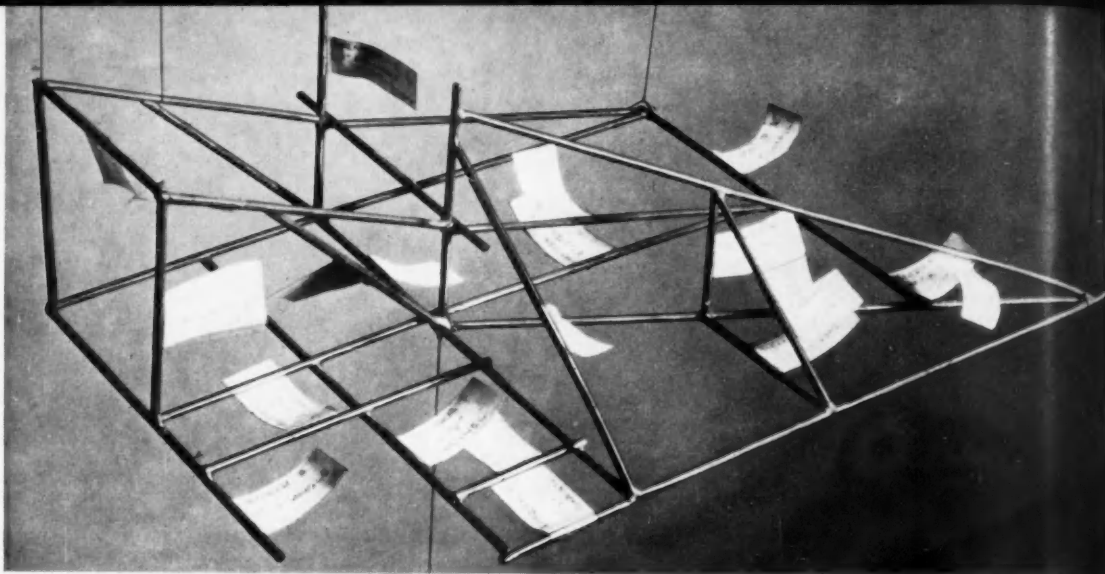
Once design and development have progressed until the product is ready to show to people outside the design team, a more careful mock-up is needed – though not necessarily a full-size one. Some manufacturers, particularly those making a wide range of domestic equipment, keep their own model-making staff for work of this kind. Most consultant designers will include model-making as part of their services to clients, because it pays them to save time and discussion at the stage where their proposals are examined. A third method of obtaining models is to use the services of one of the several firms who specialise in making models and mock-ups for manufacturing and design organisations.

When the product is large and very important, the model in its ultimate form can be used – the model made to the highest degree of perfection, showing every detail. Such models usually follow the final design and cannot be expected to further it much, but they may be very valuable for prestige, display and sales.

Anybody, given patience and a steady hand, can make a presentable model. The real art lies in selecting the important features so that unessential detail



In exhibition-stand design, a model forms a useful meeting-point for designer, craftsmen and client. Bowaters' BIF stand was first modelled by Beverley Pick Associates, the designers, on a scale of $\frac{1}{2}$ inch to 1 foot. Only minor changes were made between the model (upper picture) and the stand itself, which had a floor area of approximately 2,000 square feet and was intended for further use after the exhibition (May 1949). The entire range of Bowater products was shown, as well as displays of the processes, including a 27-foot view along the front of the stand, illustrating the production sequence of papermaking operations from tree-felling to the roll of newsprint, with semi-relief models.



Not, as it might appear, a mobile, but a model of the frame of the colonial crop harvester seen on left; made by the designers, F. B. Elcom Ltd, as the simplest and best method of conveying instructions for welding. So many of the frame-members meet at angles other than right angles that it would have been extremely difficult to make the designers' intentions equally clear by drawings.



Vitavox hand microphone, designed by Scott-Ashford Associates (described in DESIGN April 1950, page 21). The grille of the plaster model was abandoned in favour of a close mesh, avoiding over-emphasis on straight lines.

is eliminated – and in building quickly, for time is the chief cost. The pattern shop could be used to turn out a good mock-up, but a sketch-model built by pattern-making methods would be far too rigid and expensive.

Every model-maker has his own methods, depending on skills and experience, such as cutting thin card with great dexterity and precision; but more important than special skill is the ability to improvise – to produce effects by simple means. For instance, a product such as an electric iron can be scraped to shape from Plasticine. It may not look very imposing, but if it is basted liberally with thick oil the contours of the finished shape are clearly shown. Whole car bodies have been modelled in the same way, spray finished, glazed and fully trimmed. In such cases the bright metal parts can be made up from hardwood, coated with graphite and sent to the plating shop. One manufacturer even had some special lamp lenses cast in boiled sugar by the works canteen.

The value of the model is that it stirs the imagination even of the unimaginative. It helps us to see, as if completed, a design which may still require months or years of work. Rightly used, it can save, many times over, its cost in time and money.



For the layman it is not easy to imagine how a shape, seen in an opaque material, will look in a transparent material: but to the experienced eye of the glassworker, full-size plaster models are a useful stage in design development. (Vases designed by Professor Wilhelm Wagenfeld and made by Karl Schumacher in the glassworks of the Württembergischen Metallwarenfabrik.)

How three industries use models in design development

As a footnote to Mr Beresford-Evans' article, the following points are quoted from papers read at the 1951 Design Congress

AIR TRANSPORT: by C. H. Jackson of BOAC

None of the desired results, whether they be the general appearance of the cabin or the detail and comfort of the chair, can be produced with assurance straight from the design drawings. This applies equally to toilet and galley layouts, pilot's instrument panels, control locations and cockpit layouts. In consequence, the aircraft industry, particularly in catering for the civil market, has developed to a high degree the use of relatively cheap and quickly made full-scale mock-ups of wood, paper and cardboard. In these the layout, furnishings and functioning of the interior and all its features can be examined and modified, and finally approved by the purchaser. But the low cost and speed of building these mock-ups are only relative and in BOAC we are attempting to achieve similar results for galleys and toilets by the use of 1/10 scale models which show colour, lighting and layout. This is possible only because we have developed comprehensive schedules of the dimensions and accessories necessary for every phase of that narrow existence represented by an aircraft flight; and even so, final approval can be given only after inspection of and flight in the first fully furnished aircraft.

GLASS: by A. D. Copier of Leerdam Glassworks

It is necessary to give management and operatives a most exact idea of the design. This can be done by making models of plaster, clay or wood, or by a perspective plan or pattern. Models made in the actual material to be used are, of course, best of all, but in many cases it will not be possible to produce them. In the glass industry they can be made to some extent by using non-automatic methods. The designer too needs a good model to enable him to judge whether his design is a synthesis of beauty and suitability. I do not think it is necessary to have all operations such as model-making done in the design studio.

Finally, the expenses involved in making a model, whether to scale or in life size, are always worth while. They help to avoid all kinds of disappointments in production and they also enable the product to be judged by potential buyers.

CARS: by B. B. Winter of the Rootes Group

After the styling engineers have produced their series of preliminary sketches, from which a selection is made, the next step is to construct scale models of the chosen schemes by using a thick coating of Plasticine over a wooden foundation. At this stage both time and money are often saved by photographing the finished scale model, superimposing a natural background, and projecting this on to a screen to give a realistic life-size impression.

The process is then taken a step further by the construction of a full-size mock-up painted and finished in every detail so that, inside and out, it is indistinguishable from an actual vehicle. . . .

The mock-up is steadily developed until the final outcome is a replica of what it is desired to achieve.

Design and the retailer

Helsinki store gives a lead



Bedside elm chest with folding desk, designed in 1950 by Olof Ottelin, is now a best-seller in Stockmann's furniture department.

THERE IS IN FINLAND only one department store of any importance — Stockmann's of Helsinki. It is more than a store; it is an institution, like Nordiska Kompaniet of Stockholm or Harrods of London. Among other things it boasts the biggest book department in the world, for the Finns are voracious readers. But Stockmann's is also outstanding for the definite policy of design leadership adopted by its directors. It maintains a large staff of designers for furniture and light fittings and it controls its own factories at Kerava making only what its directors and its chief designer, Arkitekt Werner West, consider as safely acceptable by contemporary standards. Built in the early part of this century in a heavy German manner, the store is slowly being remodelled inside under Mr West's direction.

P. R.

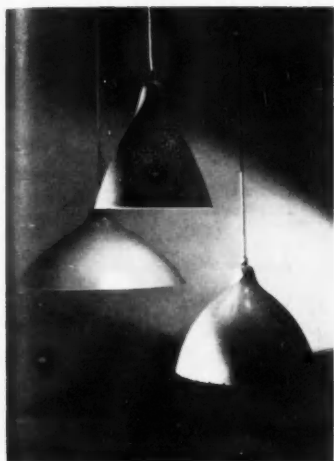


Left: waiting room at entrance to the ceramics museum at the Arabia works designed in 1946 by Werner West, executed by Stockmann's contract department.

Left, below: a show-bedroom in Stockmann's designed in 1949 by Werner West. Furniture combines natural walnut with cane.



Design: Number 38



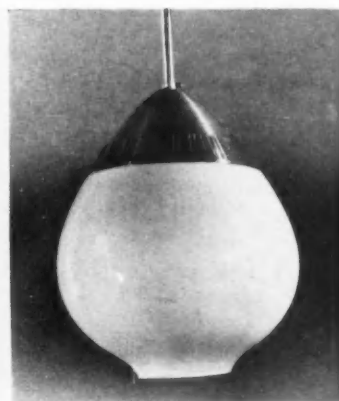
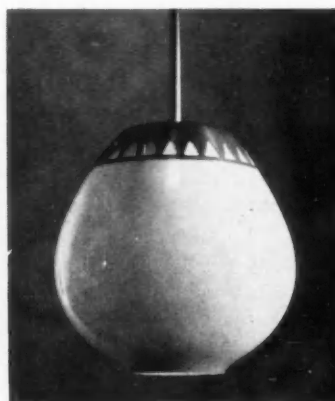
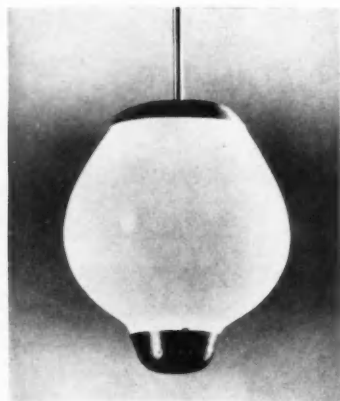
Pierced and cellulosed aluminium light shades designed for Orno (Stockmann's metal works) by Lisa Johansson-Pape.



Two Orno shades with collars decorated, left, by piercing, right, by bent cellulosed wire.



Mrs Johansson-Pape is experimenting with new materials and new, coloured finishes. Here she uses glass and wire mesh.



The same glass shape is here used to make three different fittings. The metal caps and collars are of polished brass. Designed by Lisa Johansson-Pape, made by Orno, sold by Stockmann's.

Right, a knock-down 'bent birch armchair made by Stockmann's for export. Eight frames stack together for packing. Designed by Werner West in 1947.

Left, a popular dining room armchair currently selling well in Stockmann's. Designed in 1950 by the Stockmann Design Group.





Left, the King's compartment with grey textile on the walls, settee covered with a green-yellow horse-shoe patterned material, a lightly striped grey fitted carpet and a red Rya-rug by Viola Gråsten of Nordiska Kompaniet.

On facing page, the King of Sweden examines textile patterns for the new train.



Above, the royal saloon with coved walnut ceiling, on the walls a grey-blue textile interwoven with gold thread, on the settee a blue-green cover, on the chairs a warm red, on the floor the same grey carpet which runs through all compartments.

Lower photograph shows detail of the wash-basin fitment which is similar in both private compartments.

Royal patrons of design

FOLLOWERS of contemporary design in Sweden are currently cheering a most influential companion. Their new King, Gustaf VI Adolf, has come right into the open as a supporter of the modern movement in furniture, textiles, pottery and glass, by commissioning a contemporary interior for the Royal Train.

This was no fluke nor was it the result of any behind-the-scenes manoeuvring by interested bodies but a personal decision by the King and his Queen, both of whom took the closest interest in the exercise, discussing the schemes with the designers, debating

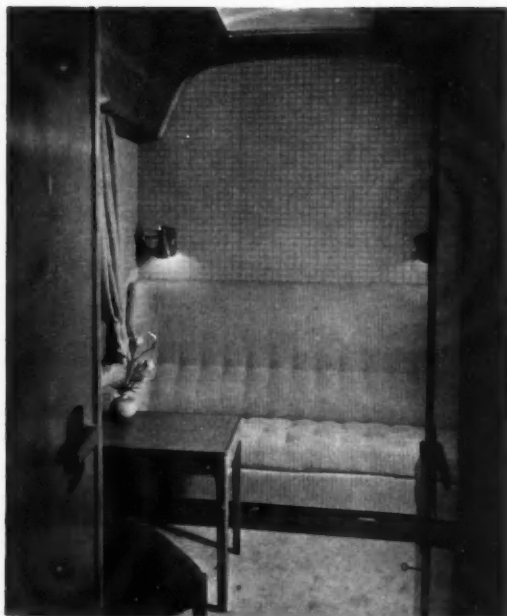


the chosen textiles and themselves choosing accessories such as stoneware, rugs and tableware.

It is a modest interior and a modest exterior too; the sides of the coach sport a simple blue livery with a single gold band and one small coat of arms. The chief impression from the new interior is not one of splendour and riches but of quality and quiet comfort; were it not for the touch of austerity (there is a minimum of pattern and detail) one might almost call the royal suite cosily domestic. The main effect of peaceful relaxation comes from the choice of textiles by Astrid Sampe of Nordiska Kompaniet, the great Stockholm department store which was called in to advise on the redecoration (Astrid Sampe is an Honorary Member of our Royal Society of Arts Faculty of Royal Designers for Industry). The walls throughout are covered with textured but barely patterned fabrics, mounted for sound insulation on felt; the colours are, in the main, soft and subdued but offset here and there by stronger accents on chairs and curtains.

The movable furniture, designed by Hans Harald Molander and Carl Axel Acking, is soberly contemporary; the bed settees, comfortable and unobtrusive by day, are converted at night by a new mechanism devised by the Swedish State Railways together with Nordiska Kompaniet and the Dux furniture factory; the plastics and glass ceiling lights are designed by Bertil Brisborg, the leather accessories by Jon Palmgren and the water decanters and glasses by Edward Hald, Hon. RDI, of Orrefors. The King chose the plain white tableware from a new range designed by Stig Lindberg of Gustavsberg.

P. R.



Left, the Queen's compartment has the same wall textile as in the King's room but the settee is in yellow "goose-eye" striped cotton and wool fabric. The Queen's curtains are light blue, the King's pencil grey. Ceilings in both rooms are of maple stained grey.

Georg Jensen up-to-date

This old-established Danish firm of silversmiths follows its founder's tradition of using the best of the younger designers and craftsmen, and plans to increase its production of stainless steel ware – already more than a sideline

IN COPENHAGEN, plans for development by the Georg Jensen company are well in hand. A factory is being built in the suburbs of the city, where, with the latest types of press from Germany and raw materials from Sweden, Great Britain and Germany, this famous firm of silversmiths will produce stainless steel flatware and cutlery designed by some of Denmark's foremost designers, to sell in quantity in world markets at competitive prices.

This bold step in the history of a firm whose ware is largely known for its almost traditional designs and its distinctive colour and finish, would surely have met with the approval of the founder, the late Georg Jensen, for Jensen set out in 1904 "to make beautiful

and practical objects to sell at prices most could afford to pay"; he had no desire to work for a small exclusive set or to satisfy a demand for luxury at all costs. Inspired by what he had seen in the museum at St Germain – fine Roman bronze knives with the moulds from which they were cast – Jensen set about putting into practice his belief that machine-made silverware and cutlery could be well designed; that moulds and dies could be cut to good contemporary designs as easily as to adaptations of the past.

It was always part of his policy to encourage the young designer and craftsman. He had a particular skill in developing any personal quality in the style of the younger designers and craftsmen working with him; some of them are today well-known industrial designers and silversmiths.

On Jensen's death in 1935 *The Times* rightly said: "He is one of those craftsmen whose pieces may safely be regarded as antiques of the future."

The small business which Jensen started 48 years ago has grown into the largest silversmiths' workshops, with retail shops in Copenhagen, Barcelona, Brussels, Buenos Aires, Geneva, London, New York, Paris and Stockholm. The company's present managing director, A. Hostrup Pedersen, has reinstated the policy of commissioning the outstanding younger designers, to give them a chance to develop their own style. He has also been behind the project to start a technical school in Copenhagen for designers of silverware. Hostrup Pedersen is not himself a designer or a craftsman; he is an engineer-trained administrator who, when war came in 1939, almost cutting off



DESIGNER : SOREN JENSEN

Silver cruet designed by Soren Jensen, son of the founder, Georg Jensen. Each piece stands about three inches high. The lid on the mustard pot has finger and thumb recesses to provide a firm grip.

supplies of silver, forcing some of the retail shops to close and leaving others with little stock to sell, turned to a new material – stainless steel – then obtainable from Sweden.

Gundorph Albertus and Harald Nielsen were commissioned to design steel flatware and cutlery; the results were immediately successful, particularly with the younger generation, but production was necessarily limited. (Later, in 1943, the firm was directed to make surgical instruments.) With the little silver in stock, the most famous lapel badge in Denmark was made – the King Christian X shield, sold in aid of charity, and symbolising the unity of the Danes.

Since the war, silverware has been designed for Jensen by a number of contemporary designers, including Arkitekts Magnus Stephensen, Erik Herløw,

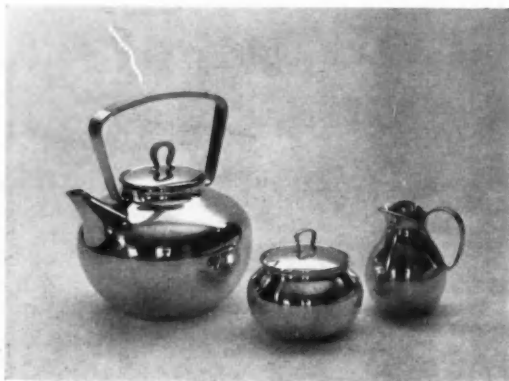
MAGNUS STEPHENSEN

A teapot in silver with cane handles nests on top of a hot water jug in similar style. Cream and sugar bowls are on the tray. Arkitekt Stephensen is one of a number of contemporary Danish designers whose work has been commissioned by the Jensen firm in the last few years.



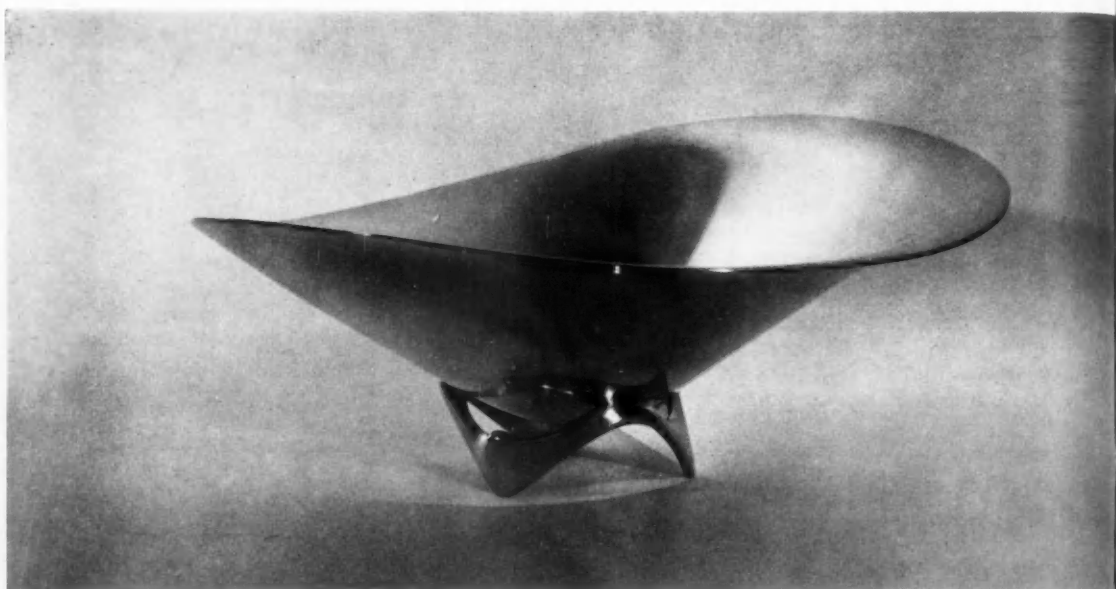
SIGVARD BERNADOTTE

Above: bracelet in stainless steel. Right: decorated cocktail-shaker in silver. Below: teapot, sugar basin and cream jug. The teapot is 6½ inches high and its handles are covered in a woven plastic material.



Henning Koppel, Acton Bjorn and Sigvard Bernadotte, and the designs for the new quantity-produced stainless steel ware will come from the same sources. Their style is so far removed from Georg Jensen's own that many Danes have been critical and some sceptical of Hostrup Pedersen's interpretation of the Jensen design policy. But Mr Pedersen already knows, from North American reports, that there is a place in the market for these designs. He knows, too, that the best contemporary design of today may well be the coveted antique of tomorrow.

PETER HATCH

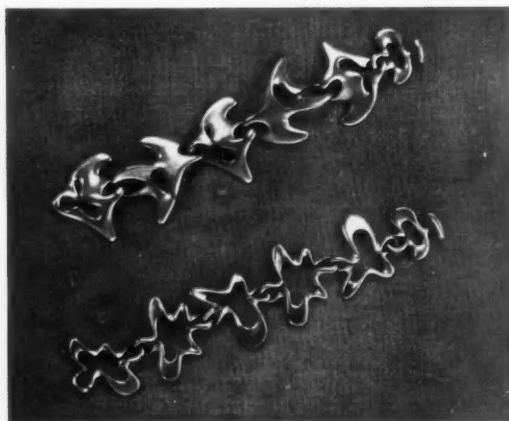


HENNING KOPPEL

At top of page: silver cruet, 4 $\frac{1}{8}$ inches high, designed by the sculptor, Henning Koppel. The mustard and pepper pots lift out of their holders.

Above: the influence of sculpture is again clearly seen in the shape of this silver bowl by the same designer. It is 15 $\frac{1}{2}$ inches in diameter. Jugs and vases have been designed in the same style.

Right: these bracelets were Koppel's first designs for Jensen. Their success led to the introduction of Jensen's new range of contemporary silverware.





NORFOLK HOUSE ST. JAMES'S SQUARE LONDON SW1

Norfolk House is now the Head Office of The British Aluminium Company Limited (Telephone Whitehall 7868).

Built on the site of the Duke of Norfolk's residence, Norfolk House was erected in 1938 and was to have been occupied by the Company in September 1939.

With the outbreak of War the building was requisitioned and later used as the Supreme Headquarters of the Allied Expeditionary Force. In the Company's Board Room General Eisenhower and his Staff planned and launched the Allied operations for the liberation of North Africa and Europe.



BRITISH ALUMINIUM

An Advertisement of The British Aluminium Co Ltd

Ⓢ 138-653

Designer's Diary N°3

The design illustrated in this announcement is of special interest. Conceived and planned by A. H. Woodfull, M.S.I.A., Chief Designer of the B.I.P. Product Design Unit, it gained the Award in the 1951 competition for plastics design, an annual competition sponsored by the Worshipful Company of Horners.

The Product. This chair has been designed not only to combine all the most desirable practical features, but to provide a truly hygienic piece of nursery furniture. Amongst the most important innovations are the elimination of germ-collecting joints, corners and crevices; and the form of the chair which has been created in sympathy with the natural form of a child's body.

The Design. The design was influenced by the following main considerations:—

Height. Very careful study was made to determine the most convenient height to enable the child easily to be fed.

Stability. Children tend to rock back and forth, rather than from side to side. This chair can safely be tipped up to an angle of 30 degrees.

Tray Hygiene. The tray is easily detachable to facilitate cleaning. It is clamped securely in position by telescopic arms which retract within the tubular structure when tray is not in use.

Footrest. The footrest is adjustable for height by varying the angle, as the child grows.

Moulding Details. The seat would be moulded in a semi-positive two-plate mould, requiring approximately 750 tons moulding pressure. The footrest would need approximately 200 tons, using a similar type of mould. In the case of both these components, the form would be tipped to approximately 45 degrees to the die block; it is thus placed to avoid sheer faces between punch and die and to assist even flow of the material.

The Material. Beetle urea material for chair, footrest and knobs, chosen for its wide colour range; Beetle Melamine for the tray, because of its excellent resistance to staining and to water.



Patent and registered design protection pending.

The B.I.P. Technical Advisory Service will assist industrial designers and manufacturers who use plastics mouldings in their production processes. Advice is freely offered regarding product styling, mould design, choice of materials and moulding techniques. The Service exists primarily to assist your own designers and technicians regarding those problems peculiar to plastics moulding, with which only a specialist can be completely conversant.

BRITISH INDUSTRIAL PLASTICS LIMITED  ARGYLL ST., LONDON, W.1

BEETLE is a trade mark registered in Great Britain and in most countries of the world

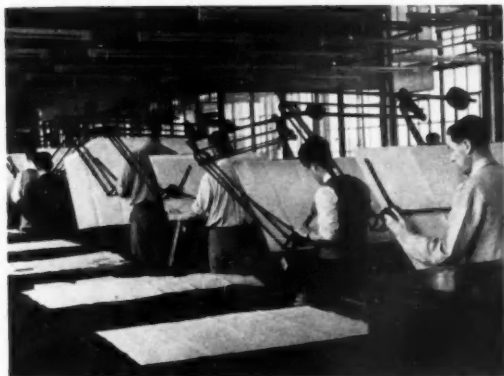
Designing the new Fordson Major

TRACTOR DESIGN is necessarily a matter of compromise. A farm tractor must be large enough and powerful enough to do a variety of jobs in all kinds of climate and on all kinds of soil, but it must not be so large and powerful that only a few farmers can afford to buy it. Its engine must keep cool when running for hours at a time when it is used to provide power for stationary jobs such as threshing or baling; but it must not be over-cooled when the tractor is travelling at some speed. Appearance, too, calls for some degree of compromise: a tractor has to stand up to so much rough usage that it needs to be rugged in construction, and this should be reflected in its looks. But at the same time the pressure of competition, and the farmer's eye for line in tractors as well as animals, demand that ruggedness of appearance shall not degenerate into untidiness.

The Ford Motor Company have good reasons for knowing all this. During the war years, they built ninety-four per cent of the wheeled tractors in this country and they have since continued to sell more tractors in their power class than any other British maker. Their share of the market has however been considerably reduced, and it is reasonable to assume that the reduction – to some extent inevitable – has been intensified by the introduction of new makes of tractor which were cleaner in appearance than theirs.

Now, with a new Fordson Major, the company's design engineers have attempted to step well ahead of possible rivals: if the first reaction of dealers and farmers and the state of Ford's order-book are any criterion, the attempt has been highly successful.

Development work has been going on ever since the previous model went into production; several experimental designs have been carried as far as the prototype stage. The decision to go ahead with the present design was taken some two years ago, at a meeting to discuss outline specifications, over which Sir Patrick Hennessy, the company's Deputy Chairman and Managing Director, presided. Management, Export, Sales and Service Divisions were represented, as well as Design Engineering – the last-named by M. Ronayne, AMIMechE, Ford's chief tractor designer.



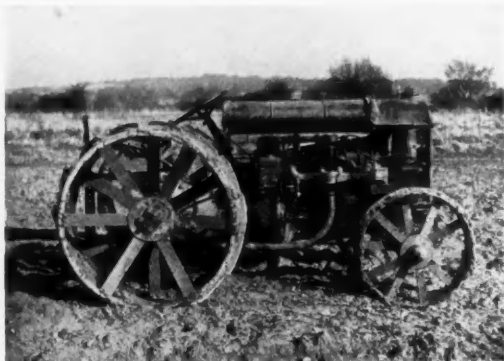
Between design and production. Ford's Tractor Drawing Office is well lighted by large windows and fluorescent fittings.

From this point development has been in the hands of Mr Ronayne and his staff, with a "styling department" assisting in appearance-design.

The mechanical features of the new Fordson Major have been widely reported (e.g., in *Engineering*, 23 November 1951). It is made with three types of engine for vaporising oil, petrol and diesel fuel; and these have been designed to use the maximum number of interchangeable parts, including such major components as the cylinder block and crankshaft. As a result, manufacture and servicing alike are simplified, and the new diesel-engined model costs £109 less than its predecessor.

Market research among farmers at home and overseas showed a demand for many features which would give greater safety, convenience and comfort in use. Some of these are illustrated overleaf. A typical refinement is a control knob, close to the steering wheel, for radiator shutters: the earlier model had no shutters but a blind, which could only be adjusted by someone standing at the front of the tractor.

The appearance of a tractor depends largely on the shape of the radiator and – if there is one – the bonnet. The new Major is the first Fordson to have a bonnet: in earlier models, the top was formed by the fuel



1917. Though designed in America, the original Fordson tractors were first used in quantity in Britain, where they helped to overcome the food shortage caused by enemy blockade during World War I. Apart from modifications such as the general adoption of pneumatic tyres, the design remained basically unchanged until the end of World War II. The veteran tractor above is still in service.

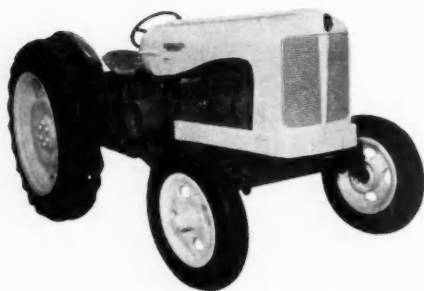


1945. The Fordson Major tractor was designed and made at Dagenham. Heavier and more powerful than the earlier Fordsons, it was intended for world markets. Production has now come to an end after six years in which 233,000 tractors of this model have been built, and 135,000 exported. "Will future models look as rugged?" DESIGN asked in April 1951. The answer can now be seen on the right.

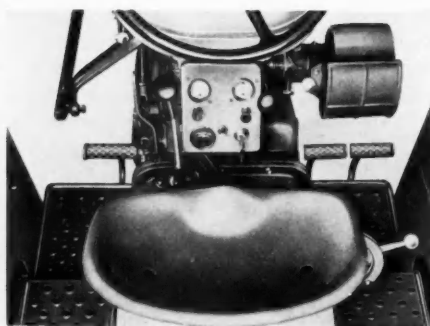
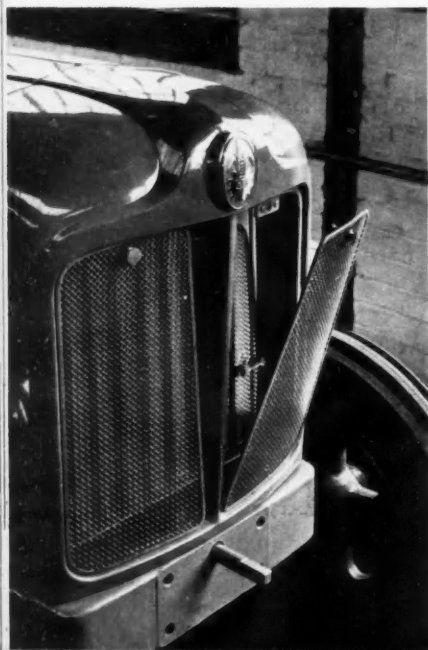
tank, extending back from the radiator. The tank is now mounted behind a bonnet which is hinged along its centre-line to give access to filler caps and other parts that it protects from dust and weather.

The blue and orange colour scheme of the earlier Fordson Majors is retained, but the shade of blue is lighter than before. Dealers who saw prototypes painted in different shades of blue were confident that brighter colour would make the tractor still more saleable – especially overseas.

ALEC DAVIS



1949-50. This full-size wooden mock-up of the new tractor preceded the first working prototypes. The accessibility and comfort of the driving position, and the convenient grouping of controls, were tested at this stage.



Design for convenience. (Left) Fine-mesh grilles, protecting the radiator from chaff, are easily removed for cleaning. Note also the implement mounting pad below the radiator shell. The enamelled radiator badge, made by Joseph Fray Ltd, is an innovation. (Centre) Not only driving controls

but the controls for radiator shutters, power take-off and hydraulic lift of implements are easily operated from the driver's seat. (Right) The new tractor is lower than the original Major, making refuelling easier where no pumps are available.



1952. The new Fordson Major, first shown to farmers at the end of last year, is now in production. A new gearbox with six forward speeds and two reverse has made this model four inches longer than its predecessor; this change, together with a reduction in height, has materially affected its appearance. The designers have succeeded in cleaning-up the lines of the Major without making working parts inaccessible or producing an imitation private car.

Like the original Fordson Major, the latest model is made as a crawler tractor (right), using County full tracks, besides the standard wheeled version. Modifications in design include a bench-type seat, two levers instead of a wheel for steering, and an upright exhaust pipe. There is also a half-tracked version (not illustrated) in which Roadless tracks take the place of rear wheels.

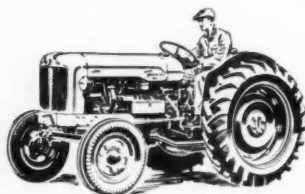




*D*istinction

This emblem on the new Fordson Major Tractor indicates 'Fordson' and says it in any language.

Just as clearly, the glowing colours, the fine craftsmanship, the quality finish say 'Emblem by Fray'.



The full-size illustration above shows the badge used to add distinction to the new Fordson Major Tractor.

It is produced in five colours with chromium plated finish.

J O S E P H F R A Y L I M I T E D

Makers of fine emblems for Britain's Industries

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Design NEWS SECTION

PRODUCTS

Tax-free chair

A STACKING CHAIR to sell at £3, designed by Robin Day, is being made by S. Hillé and Co Ltd (Romford Road, Chigwell, Essex). This is the first time that Hillé have made tax-free furniture: the chair, called the *Hillestak*, forms part of a range of tax-free dining-room furniture which includes sideboard, bookcase, dining table, stacking table and fireside chair.

The *Hillestak* chair is made of beech, but it is also obtainable veneered in cherry, mahogany or walnut for an additional 6s. A rayon-covered slip-on squab seat makes it into a dining chair.

For export, the chair can be sent in three pieces to save space. It then only needs screwing together at its destination.



Hillé's stacking chair.

Sprayed plastic for fluorescent light shade

'CHRYSLALINE' light shades are now being used with fluorescent tubes, and the General Electric Co Ltd have acquired exclusive rights for the fittings incorporating them. These should help to popularise fluorescent lighting in the home, as the sprayed plastic material (described in *DESIGN*, March 1951) thoroughly dif-



A new Chrysaline shade.

fuses the light coming from the tube or tubes. Moreover, the unbroken surface of the shade makes the fittings unusually free from dust-collecting projections. The first designs to go into production are the work of Beverley Pick, MSIA, in co-operation with the GEC.

These Chrysaline fittings - together with others distributed by other firms - are described in a new catalogue which also was designed by Beverley Pick. (W. S. Chrysaline Ltd, Berkhamsted, Herts.)

Spool for a razor lead

WHERE TO 'PARK' the lead of a dry shaver, when it is not in use, is one of the minor problems of life for users of this kind of razor - especially when packing for a journey. As one solution of the problem, the makers of the Arvin shaver have de-

signed a housing for the razor which holds its cutting head firmly between two rubber cushions, provides a socket for the plug, and forms a spool round which the whole lead can easily be wound. The housing, which is moulded in maroon polystyrene, is supplemented by a broad belt that can be used to hold the lead in position after it has been wound, and a transparent plastic cover.

The whole makes a rather awkward shape to pack in a rectangular carton (which was considered desirable for convenience in shipping and storage) and the boxmakers worked out a method of using pads of ordinary corrugated board in such a way as to form adequate shock-absorbers. To put their ingenious razor-case to good use in sales-promotion, Arvin have illustrated it on the carton, which is letterpress-printed in maroon and varnished.

Credits: The Wind-a-Pak dry



shaver by Arvin Electric Ltd, Southend-on-Sea. Plastic housing injection-moulded by Halex Ltd, Industrial Division. Cartoon by Richard Pye and Co Ltd, London N1, with art-work by Albert J. Osborn.

MATERIALS

Unplasticised p.v.c. sheeting for reflectors

White, unplasticised polyvinyl chloride (p.v.c.) sheet 1/16in. thick has been developed for the manufacture of lighting reflectors for fluorescent lamps, and a number of fittings using this material are being made by large electrical manufacturers in Great Britain. In the main, styles conform to those already used for similar fittings manufactured in Perspex, but some modification in design is usually necessary to cope with the greater flexibility of the p.v.c.

Because unplasticised p.v.c. sheet has remarkably high impact-strength, robust fittings can be made from material only 1/16in. thick. The material has been developed for lighting fittings primarily to meet the demand for a reflecting material that can be used in highly corrosive atmospheres without significant deterioration in optical properties.

The material is opaque, and has not the advantages of translucent materials such as opal Perspex in the manufacture of lighting reflectors; but it offers advantages over both stove-enamelled and vitreous-enamelled steel, and competes with the latter in price. The reflection factor of white unplasticised p.v.c. sheet to light from a tungsten lamp is 85 per cent. The comparable figures for vitreous-

enamelled and stove-enamelled steel are 80-85 and 75-80 per cent.

The methods of shaping unplasticised p.v.c. are similar to those used with Perspex. When softened by heat, it can be shaped by the application of pressure and will retain its shape on cooling. Normal wood- or metal-working tools are suitable for cutting and sawing the material, and it can be machined, welded and cemented. The fact that it softens on heating places a limit on the temperature of p.v.c. lighting reflectors: 60°C., a temperature which is adequate for fluorescent light fittings. The material seems likely to be chiefly used for such fittings.

PEOPLE

STUART ROSE, MSIA, consultant typographer to *DESIGN*, has joined the staff of Benham and Co Ltd, Colchester, who print this magazine. Mr Rose has worked closely on individual jobs with Benham's since 1945: the new relationship marks a stage in the development of the firm's typographic design policy and will bring most of their work under his eye - and pencil.

PETER RAY, FSIA, designer and typographer, has joined Colman Prentis and Varley Ltd, London W1, in a consultant capacity. He is in charge of a new unit set up by CPV for exhibition and packaging design. Mr Ray is continuing his private practice, and is Honorary Secretary of the Society of Industrial Artists - for whom also he has edited the three volumes of *Designers in Britain*.

Fortune reports that this year's Nash cars will have bodywork designed by PININ FARINA. "56-year-old Italian designer and one of Europe's top custom-body builders," who accepted a retainer from Nash two years ago. Farina-designed bodies on Bristol, Lancia, Fiat and Alfa-Romeo chassis were illustrated in *DESIGN*'s first issue, January 1949.



Left: the Arvin razor case forms a spool around which the lead is wound. In the carton, it is protected by the corrugated paper pads (right) and by a further corrugated sleeve (not illustrated).

PUBLICATIONS

The Carpet Annual 1951, edited by H. F. Tysser, provides a comprehensive review of the carpet industries in most countries and includes a chapter on trends in design, colouring and texture of new carpets. (British-Continental Trade Press Ltd, 20s).

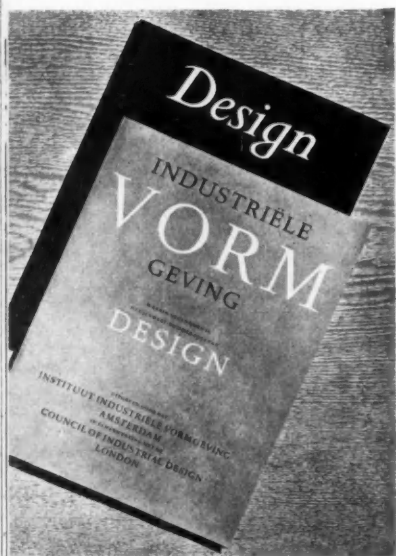
Design in Typography is the subject of a 32-page pamphlet by John Tarr (Phoenix, 3s 6d).

Film Strips is a brochure from the Council of Industrial Design describing three new strips on chair design. Details of the Council's Film and Film Strip Advice Service are given.

ARTICLES: The Oslo newspaper *Vartland* has published a special issue (3 November 1951) devoted to export trade, printed throughout in English. Contents include an article on the applied arts by Arne Remlov, who writes: "in the field of ceramics... the increase in the number of manufacturers is almost alarming"; and another on furniture production by Bengt Winge, who makes a similar comment on the growth of this industry: "only one-fifth of the present [2300] furniture manufacturers were founded before 1920."

The *British Printer* begins, in its January-February issue, a series of illustrated notes on post-war type-faces, with 5 pages of specimens.

Below: the cover designed in Holland for the special edition *Vorm* (referred to in last month's leader) which incorporated DESIGN for January with an additional section of news from the Institute of Industrial Design, Amsterdam.



Light Metals, December, has a survey of recent experiments (which are continuing) in "Vitro enamel finishes for aluminium" by J. C. Bailey of the Aluminium Development Association. The subject was also dealt with in last October's issue of *Ceramic Age*, U.S.A.

With a crystal-structure pattern from the Festival Pattern Group as the starting-point of its argument, the Penguin *Science News* No. 22 publishes five photomicrographs of different woods, and comments that these "may also suggest possibilities for design." The whole subject of "the new landscape revealed to the human eye by scientific and technological research" is the theme of a book by Gyorgy Kepes, to be published shortly in America, and a selection of the photographs which Professor Kepes has collected for this book appears in *Graphis*, No. 36.

Interiors, November 1951, devotes 8 pages to pictures of Milan's rebuilt department store, La Rinascente; and 6 pages, plus a folding plate, to the furniture designed by Finn Juhl of Denmark, which Baker Furniture Inc are now making in the United States.

Packaging Review, December, has a full report of a paper recently given by Charles Lein of the Goodyear Tyre and Rubber Co Ltd on the "Properties and Uses of Pliofilm for Packaging."

RETAILING

THREE RETAILERS are co-operating with the Council of Industrial Design to supply furnishings for houses to be shown by the Ministry of Housing and Local Government at the *Daily Mail* Ideal Home Exhibition in March. They were chosen by means of a draw from a number of retailers who had expressed interest.

A three-bedroom house will be furnished by Oetzmann and Co Ltd; Mrs Psyche Pirie will prepare the decorative schemes and choose the furnishings in consultation with the National Federation of Women's Institutes. Heal and Son Ltd will furnish the two-bedroom house with Mrs Marjorie Holford as designer, in consultation with the National Union of Townswomen's Guilds. For the third house, Mrs Phoebe de Syllas, in consultation with the National Old People's Welfare Committee, will choose furnishings from John Bowles and Co Ltd of Brighton.

THREE FURTHER residential courses in design for retail furnishing salesmen will be held by the Council of Industrial Design at Dillington House, Ilminster, Somerset, during February. Students will be able to specialise in either soft furnishings

(11-15 February) or furniture (18-22 February). A separate course for furniture salesmen from co-operative societies will be held from 25 to 29 February.

The inclusive charge per head for each course is £7 7s, and inquiries should be addressed to Miss Jean Stewart, Retail Officer, ColD, Tilbury House, Petty France, London, SW1.

PACKAGING

LATEST ADDITION to Player's range is Sun Valley light shag, a high-quality tobacco whose standard is reflected in the dignified simplicity of its pack. The labels have been designed by Norbert Dutton, FSAI; they are printed in buff with lettering in reddish brown and black. The brand-name is in shadow capitals, with secondary wording in script.



New label for a new line.

COMPETITION

A STEP TOWARDS improving the design of petrol filling and service stations in Britain was taken last month when C. M. Vignoles, managing director of Shell-Mex and BP Ltd, announced a competition open to registered architects. It is sponsored by his company with the support of the Royal Institute of British Architects and of the Design and Industries Association. The competition is in three sections; for country, suburban and main motorway service stations. First and second prizes in each section will be £300 and £150, and additional prizes may be awarded.

Shell-Mex and BP Ltd stress that they are wholesale distributors and have no intention of entering the retail field. They will not erect the buildings but they will give wide publicity to the competition awards. Competitors' drawings, together with models of the winning designs, will be exhibited, and illustrations and details will be published in booklet form.

Last date for receipt of entries is 18 April. Inquiries should be addressed to Shell-Mex and BP Ltd, Publicity Department, Shell-Mex House, Strand, London WC2.

LETTERS

Design v. Danger:
the last round

A LONDON READER comments that "the article about design and danger (November



In production: a safety ashtray.

1951, page 21), touched on some important points"; but, he adds, "it was a little misleading in respect of the ashtray. . . . There are many ashtrays on the market now which embody the same safety principle in one form or another.

"I am not connected with the design or manufacture of ashtrays, but I feel it is a pity not to give credit to those manufacturers who have already taken the steps recommended in the article and I enclose a photograph of one of the models I have in mind."

This photograph we reproduce above. The ashtray is made by the Parker Pipe Co Ltd, London W11, and carries the provisional patent no. 5283/46.

Several readers have inquired about the Council of Industrial Design's part in promoting the design of safer electric fires. The story is summarised below by S. D. Cooke, of the Council's Industrial Division:

"In January 1947 the Council was approached by Dr Leonard Colebrook of the Medical Research Council Burns Unit of the Birmingham Accidents Hospital and, at his request, it was decided that contact should be made with the Ministry of Health and the British Standards Institution. A meeting was held with representatives from these bodies on 7 February 1947, as a result of which the Council commissioned F. B. Elcom Ltd to produce designs for an electric fire attractive in appearance and considered by the committee and the Ministry of Health to give as much protection as possible against accidents. In September 1947, a report and a prototype fire were placed before the Council, and an application was made for a

patent, the draft specification of which was placed before the BSI committee.

At a meeting of the BSI committee on 4 March 1948, a special sub-committee was set up to draft a British Standard covering safety requirements on electric fires for normal domestic use. A patent was granted on 15 October 1948. Since then a great deal of work has been carried out by several industries and bodies concerned with the project, notably the Women's Advisory Council on Solid Fuel, and the Gas Industry, and various manufacturers have studied the problem in detail. The matter was brought to a successful conclusion so far as electric fires are concerned by the publication of the existing standard."

In conclusion, Kenneth Howes, author of DESIGN's article which started all this correspondence, comments:

"I was very interested to see the ashtrays produced by Messrs Guinness and by Messrs Parker. The ashtray shown in my article is covered by a provisional patent but it was not realised, at the time of publication, that these products were on the market. If, through this correspondence, such safety designs are made more widely known, the article will have had the effect I hoped for.

"In answer to Mary Gilbert's assertion that I have 'incom-

plete information on the designs now generally adopted by leading manufacturers of electric fires,' I was fully aware of the existence of the Ferranti *Safera*, and one or two others in the same category. The *Safera* had, in fact, been illustrated in DESIGN (November 1950, p. 31). I still maintain that the majority of electric fires on the market in this country do not have adequate element guards, and certainly no automatic cut-out.

"Mr Woodbridge gets right at the heart of the problem when he says (DESIGN, January, p. 30): 'There are many British Standards for electrical and other goods that specify the safety conditions with which designers should comply. We use the word "should" advisedly because in many instances compliance is not compulsory.' These two words are at the root of the manufacturers' failure to provide safeguards which the user has a right to demand."

London Transport's new single-deckers

SIR: On the London Transport 1951 bus and coach fleet (reviewed in your December issue, pages 20-1) Scott-Ashford Associates and myself were engaged as design consultants. We are described as having "collaborated with the Chief Mechanical Engineer's design team on

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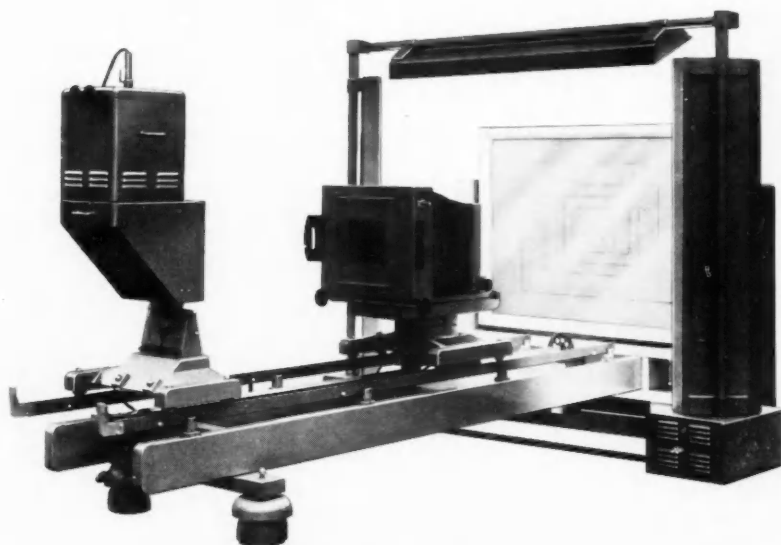
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points affecting appearance." No one could more thoroughly appreciate the priority of mechanical considerations in the design of a vehicle, nor more warmly applaud the long and splendid tradition of London Transport in the field of vehicle design; yet I cannot help feeling that your phraseology is unduly cautious. It appears to suggest that "points affecting appearance" are very trivial indeed compared to the fact that a diesel engine is mounted under the floor. . . .

When Henry Dreyfuss and Raymond Loewy are consulted on the design of a vehicle they are not, presumably, responsible for its mechanical layout and operation. But they are not for that reason described, either by their clients or the press, as having "collaborated . . . on points affecting appearance." Exaggerated claims for appearance design will be deprecated by every responsible design consultant, but it is profoundly discouraging in this country to find his contribution - for what it may be worth - persistently minimised. To compel him, in self-preservation, to take charge of his own publicity, will invite a return to that super-salesmanship by which in the past the progress of sound design has been so unhappily delayed.

NORBERT DUTTON
London WC2



Inside the new London Transport sightseeing coach.

SIR: Your reference to the London Transport coaches unfortunately suggests that we and our colleague, Norbert Dutton, simply revamped an existing design.

We were limited on length, height, width and the need to get passengers on and off the bus easily.

The front-end treatment was difficult, as demands for maximum seating and passage-room tended to push the door to the corner, and the motion of the operating mechanism forced us to make a rather sudden change of contour on the roof, instead of the smoothly blended sweep we would have liked. Nevertheless, we do not think it is unsightly.

The main changes we made were:

- 1: Contours and radii in plan and cross-section are all different from previous coaches, altering the whole character of the coachwork and bringing the general form up-to-date.
- 2: All the window shapes have been given a new, crisper line and treated with colour and trim to make them into a unit and less like holes punched in the body.
- 3: With a flat-fronted bus like this, it is essential to give the form direction. This was done by dropping the driver's windows to one level, giving a cab appearance.
- 4: New shape mudguards more in keeping with the body.
- 5: Compromises in the cross-section contour to give maximum footroom while using the standard narrower bus seat.
- 6: General treatment of the interior, including specifying the exact shades of colour.

7: The moquette on the seats is a new design by Norbert Dutton.

8: At our suggestion, a stoved enamel finish replaced the rexine covering round the window mouldings, giving improved durability and ease of maintenance.

9: All this was done within the limits of maintenance requirements, such as easily replaced panels and standard components like lamps, window mechanisms, seats, etc. I think you will agree that this was rather more than revamping an existing bus.

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The colour illustration on page 2 is reproduced by courtesy of the Orrefors Glassworks from the house organ, *Orrefors News*. Colour blocks on page 10 (line) and page 11 (halftone) by Wace.

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FLUORINE

From the famous Blue John mine in Derbyshire comes a mineral called fluorspar. For generations this has been mined in the North of England for use as a flux in metallurgical processes and for making enamels and glass. Today fluorspar has assumed a new importance. It is the chief source of hydrofluoric acid, the compound from which the element fluorine is obtained. Fluorine is chemically so active that it combines with glass and other materials normally used in chemical apparatus. Moissan, the famous French scientist who in 1886 first isolated it, used platinum apparatus which, though attacked, reacted sufficiently slowly to allow him to isolate some free fluorine

gas. For over fifty years this elusive element remained a chemical curiosity, but during the war it was needed in large quantities for the manufacture of certain uranium compounds used for the atomic energy projects. The result was so to intensify the research on fluorine chemistry (a great deal of it in I.C.I.'s laboratories) that fluorine is now produced on an industrial scale. Certain fluorine compounds are astonishingly resistant to corrosion and decomposition, a property which is of great value commercially. I.C.I. uses some of these in the manufacture of 'Arcton' refrigerants and 'Fluon', a new plastic material.



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